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AMSAT NEWS SERVICE
ANS-181

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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ANS-181 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 181.01
From AMSAT HQ SILVER SPRING, MD.
June 30, 2013
To All RADIO AMATEURS
BID: $ANS-181.01

ESA Education Office announce six CubeSats chosen for Phase 1 Initiative

Six student teams and their supervisors have gathered at ESA's ESTEC centre in The Netherlands for the kick-off of the new Fly Your Satellite! Programme under the ESA Education Office.

On June 26-28, ESA experts will introduce the objectives and present the activities to be performed during the first phase of the programme.

In January, ESA's Education Office announced the 'Fly Your Satellite!' initiative. This is aimed at offering student teams the opportunity to become familiar with good engineering practice to build and perform satellite testing in order to increase the chances of a successful mission. The 2013 edition of the programme is however only focusing on testing selected university-built satellites that are already at an advanced stage of development.

'Fly Your Satellite!' builds on the success of the 'CubeSats for the Vega Maiden Flight' pilot programme. This culminated in 2012 with the launch of seven student-built CubeSats on the first flight of the new ESA Vega launcher.

The focus of the kick-off meeting will consist of coordinating the activity to be performed during the first phase of Fly Your Satellite! enabling the teams to complete the construction of their satellite. This will include extensive satellite testing in ambient conditions under the supervision of ESA specialists who will decide which satellites should participate in the next phase of the programme.

The second phase will see the satellites tested in the simulated conditions of outer space and in those the satellites will experience at launch. These will include vibration and thermal-vacuum tests.

The six CubeSats chosen for Phase 1 are:

Robusta-1B from France will validate a radiation test methodology for specific transistor components.

Oufti-1 from Belgium will demonstrate the D-STAR digital communication protocol and validate high-efficiency solar cells.

ConSat-1 from Canada will analyse radiation characteristics in the South-Atlantic Anomaly, and test technology payloads.

e-st(a)r-II from Italy will test an Active-Attitude Determination Control System.

AAUSAT4 from Denmark will test an improved version of student built AIS (Automated Identification System) receivers.

Politech.1 from Spain will carry a student built C-band communication system, a "GEODEYE" Earth Observation camera for academic purposes, and solar wind experiments.

Read the full ESA article at
http://www.esa.int/Education/ESA_and_student_teams_kick-off_Fly_Your_Satellite

Fly Your Satellite! initiative
http://www.esa.int/Education/Students_are_you_ready_to_fly_your_satellites_in_space

[ANS thanks AMSAT-UK for the above information]

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13 Colonies Special Event Includes Satellite Operations

The 13 Colonies Special Event Stations will be active on the air for Independence Week, July 1-6, 2013. Get all of the details at http://www.13colonies.info/

On the high frequency amateur bands the 13 Colonies stations will operate from 09:00 AM Eastern Daylight Savings Time (1300Z), on July 1st, to 12:00 PM (midnight) Eastern Daylight Savings Time, July 6 (0400Z, July 7).

The 13 Colonies Satellite Stations will be active as shown in the table below:

STATE SE CALL STATION CALL OPERATOR
----- ------- ------------ --------
NY K2A WB2OQQ Pete
VA K2B NL7VX Steve
CT K2D WA8SME Mark
DE K2E KB2M Jeffrey
MD K2F WA3SWJ Bruce
MA K2H KB1PVH David
NJ K2I KB2M Jeffrey
NC K2J N8MH Mark
SC K2L K4YYL Art
PA K2M WB3U Elizabeth (FM Birds Only)
K3BFS Richard (Linear Birds Only)

Any satellite station can work the 13 Colonies states off the birds. Please indicate your contacts are Satellite. More information can be found at http://www.13colonies.info/Satellites.htm

[ANS thanks the 13 Colonies Special Event for the above information]

2013 AMSAT-UK International Space Colloquium Starts July 19, 2013

The 2013 AMSAT-UK International Space Colloquium will start late afternoon on Friday, July 19 and will run through until the afternoon on Sunday, July 21 at the Holiday Inn, Guildford, GU2 7XZ, UK.

It will be preceded by a "Hands-on" CubeSat Workshop. This free workshop will take place at the nearby University of Surrey on Friday, July 19 and this will be followed, at the hotel, by the usual Colloquium "Beginners Session" in the late afternoon.

It is anticipated that both the FUNcube-1 and FUNcube-2 missions will be launched later this year and the FUNcube team will be on hand to talk about the missions and the planned educational outreach. A full demonstration of the Engineering Model, which has been performing flawlessly for almost a year, will also be provided.

Further details and booking information at http://amsat-uk.org/colloquium/colloquium-2013/

[ANS thanks Trevor, M5AKA for the above information]

Two Lithuanian Amateur Radio CubeSats Plan 2013 Launch To ISS

It is hoped that two Lithuanian satellites will be among the CubeSats sent by Nanoracks LLC to the International Space Station (ISS) on the SpaceX CRS-3 mission in November, 2013. They will be deployed from the ISS by the JEM Small Satellite Orbital Deployer (J-SSOD) of the Japan Aerospace Exploration Agency (JAXA).

The Kaunas University of Technology is developing LituanicaSAT-1 while the Lithuanian Space Federation is working on LitSat-1.

2013 is the 80th anniversary of the historic flight by Lithuanian pilots Steponas Darius and Stasys Gire.nas in the airplane Lituanica.

On July 15, 1933, they took off from Floyd Bennett Field in New York and flew across the Atlantic Ocean, covering a distance of 6,411 kilometers without landing, in 37 hours and 11 minutes. Tragically they crashed by the village of Kuhdamm, near Soldin, Germany just 650 km from their destination of Kaunas in Lithuania.

LituanicaSAT-1 plans to carry a VGA camera, GPS receiver, 9k6 AX25 FSK telemetry beacon and a 150 mW V/U FM voice transponder.

Links:
• Google English web http://tinyurl.com/KosmonautaiLituanicaSAT-1
• Google English Wiki http://tinyurl.com/WikiLituanicaSAT-1
• Facebook https://www.facebook.com/Lituanicasat1

LitSat-1 is understood to be planning a U/V linear transponder for SSB/CW communications.

Links:
• Lithuanian Space Association in Google English
http://tinyurl.com/LithuanianSpaceAssociation
• Facebook https://www.facebook.com/palydovas
• Google English article http://tinyurl.com/LitSat-1-Article

Google English article on the two Lithuanian CubeSats
http://tinyurl.com/LithuanianCubeSats

1933 Lituanica flight http://en.wikipedia.org/wiki/Lithuanica

[ANS thanks AMSAT-UK for the above information]

JULY SPACE STATION SPACEWALKS TO BE PREVIEWED AND BROADCAST ON NASA TV

WASHINGTON -- Two Expedition 36 astronauts will venture outside the International Space Station twice in July on spacewalks to prepare for a new Russian module and perform additional installations on the station's backbone.

NASA's Johnson Space Center in Houston will host a NASA Television briefing to preview the spacewalks at 2 p.m. EDT Tuesday, July 2. Reporters may attend the briefing at Johnson and other participating NASA centers, or ask questions by calling Johnson's newsroom at 281-483-5111 no later than 1:45 p.m. Tuesday.

Briefers will include:

-- David Korth, NASA spacewalk flight director
-- Ernest Bell, Spacewalk 22 spacewalk officer
-- Karina Eversley, Spacewalk 23 spacewalk officer

Flight Engineers Chris Cassidy of NASA and Luca Parmitano of the European Space Agency will conduct the spacewalks July 9 and July 16 from the station's Quest airlock. Each spacewalk is scheduled to last 6 1/2 hours. Cassidy and Parmitano will replace a space-to-ground communications receiver and wireless video equipment and install power and cables for a Russian multipurpose laboratory module that will be launched later this year. The new module will serve as a research facility, docking port and airlock for future Russian spacewalks and will replace the Pirs module.

Cassidy, who is designated EV1 for the spacewalks, will wear a U.S.

extravehicular mobility suit bearing red stripes. The spacewalks will be the fifth and sixth of Cassidy's career. Parmitano, who is designated EV2, will wear a spacesuit with no stripes and will be making the first two spacewalks of his career. He will become the first Italian astronaut to walk in space. Both spacewalkers will wear helmet cameras to provide up close views of their work.

NASA TV coverage of the spacewalks will begin at 7 a.m. on both July 9

and July 16. Both spacewalks are scheduled to begin at 8:10 a.m. For NASA TV streaming video, schedule and downlink information, visit:

http://www.nasa.gov/ntv

For more information about the International Space Station and its crew, visit:

http://www.nasa.gov/station

[ANS thanks NASA for the above information]

Upcoming ARISS contact with Scuola Secondaria grado "Arturo Toscanini", Capiago Intimiano, Italy and Scuola Media Massimiliano Kolbe, Vercurago, Lecco, Italy

An International Space Station school contact has been planned with participants at Scuola Secondaria 1? grado "Arturo Toscanini", Capiago Intimiano, Italy and Scuola Media Massimiliano Kolbe, Vercurago, Lecco, Italy on 29 June. The event is scheduled to begin at approximately 11:50 UTC.

The duration of the contact is approximately 9 minutes and 30 seconds. The contact will be a combination of direct and telebridge with the contact starting with IK1SLD, then proceeds to IZ2WLC and finishes back with IK1SLD . The contact should be audible over Italy. Interested parties are invited to listen in on the 145.80 MHz downlink. The contact is expected to be conducted in Italian.

Scuola Secondaria 1? grado "Arturo Toscanini", Capiago Intimiano, Italy

The school is located in Capiago Intimiano, a small town in the north part of Italy, 7 km far from Como. Como and the surrounding area can be clearly seen from space due to the unique shape of Lario lake (like a Y upside down). It tooks the name from "Arturo Toscanini", a famous musician and conductor lived across the end of 19th century and early 20th.

There are 10 classes and the students are from 11 years old to 14.

Scuola Media Massimiliano Kolbe, Vercurago, Lecco, Italy

Local secondary school with students aged from 10 to 14. It's located in a building, built in 1950 by the government, originally used as a sanatorium converted into school in late 1970.

Vercurago is a small town not far from Lecco, built on the shores of Garlate's lake (as it comes out of Lario lake and become Adda river).

Participants will ask as many of the following questions as time allows:

1. Why did you decide to become an astronaut?

2. How do you recycle water?

3. How did you feel on your first day in space?

4. What are the main characteristics of the Earth seen from space?

5. What was your first impression of the ISS?

6. How the northern lights appear from space?

7. How is life in space for six months with only five other people?

8. What is the most difficult activity you've carried out in space?

9. When you see the Earth from the space, what do you think?

10. How do you treat waste?

11. Is the Sun different seen from the space?

12. How do you shave in space?

13. What do you usually do in your free time?

14. How does life in orbit influence vital functions?

15. When you'll come back to the Earth, what will be the first thing you'll do?

16. When the Earth is in the dark, which are the brightest cities?

17. Can you see pollution on the Earth from the ISS?

18. What kind of studies did you attend to become an astronaut?

19. Which was the strongest emotion you felt when you passed quickly from the Earth to space?

20. What is the human construction visible from the space station?

21. How hard was the training before departure?

22. What do you eat in space?

23. What did you miss more from the earth?

24. Have you ever experimented how spiders build webs in space?

25. Have you ever had any serious technical problems on the ISS?

26. What kind of experiments are you carrying out?

27. What do you like most about your job?

28. What is the most ambitious project for the future?

PLEASE CHECK THE FOLLOWING FOR MORE INFORMATION ON ARISS UPDATES:

Information about the upcoming ARISS contacts can be obtained by subscribing to the SAREX maillist. To subscribe, go to http://www.amsat.org/amsat-new/tools/maillist/ and choose "How to Subscribe".

Visit ARISS on Facebook. We can be found at Amateur Radio on the International Space Station (ARISS).

To receive our Twitter updates, follow @ARISS_status

Next planned event(s):

1. Association Intercultura Onlus, Frascati, Italy, telebridge

Sat, 06July2013, 17:02 UTC 40 deg via W6SRJ

ARISS is an international educational outreach program partnering the participating space agencies, NASA, Russian Space Agency, ESA, CNES, JAXA, and CSA, with the AMSAT and IARU organizations from participating countries.

ARISS offers an opportunity for students to experience the excitement of Amateur Radio by talking directly with crewmembers on-board the International Space Station. Teachers, parents and communities see, first hand, how Amateur Radio and crewmembers on ISS can energize youngsters' interest in science, technology, and learning. Further information on the ARISS program is available on the website http://www.ariss.org/ (graciously hosted by the Radio Amateurs of Canada).

(ANS thanks David Jordan, AA4KN for this ARISS update)

Satelite Shorts From All Over

Kevin, N4UFO reported on June 25 he was able to work three transatlantic contacts via AO-7. The stations he contacted included EA8HB, CT3FM, and G7BTA. Kevin noted, "I must say... three QSOs in one pass, WOW! That was a lot of fun! AO-7 is a grand old bird, long may she live! I just had to share how exciting it was!" (via N4UFO on starcomm-bb)

In the July 2013 edition of the ARRL publication of QST, ARRL Chief Executive Officer, David Sumner, K1ZZ, presents a feature on CubeSats. Steve Ford, WB8IMY, presents a column, Eclectic Technology, titled "More Satellites on the Way", a listing of the 7 satellites due to be launched in 2013. (via www.arrl.org)

A CubeSat presentation was given by AMSAT Francophone to a scientific conference held by the Radio Club of Paris F6KVP on May 29, 2013.
A video of the presentation has been made available on the web.
AMSAT-Francophone site in Google English:
http://tinyurl.com/AMSAT-Francophone

Radio Club of Paris F6KVP in Google English:
http://tinyurl.com/RadioClubParis

F6KVP on Twitter:
https://twitter.com/F6KVP
(via AMSAT-UK)

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Joe Spier, K6WAO
k6wao at amsat dot org